



NATIONAL RECOVERY AND RESILIENCE PLANS

An opportunity for a Water-Smart Society

July 2021



Water Europe (WE) is the voice and promoter of water-related innovation and RTD in Europe. WE is a multi-stakeholder association representing over 230 members from academia, industry, technology providers, water users, water service providers, civil society, and public authorities. WE activities and positions are guided by its Water Vision "The Value of Water: Towards a Future-Proof European Water-Smart Society".

AN OPPORTUNITY FOR A WATER -SMART SOCIETY

Water Europe Vision

Water Europe has set out a blueprint for a society in which the true value of water is recognised and realised, and all available water sources are managed in such a way that water scarcity and pollution of water are avoided, water and resource loops are largely closed to foster a circular economy and optimal resource efficiency, while the water system is resilient against the impact of climate change events.



Multiple Waters



Digital Water



Value in Water



Hybrid Grey-Green Infrastructure

National Recovery and Resilience Plans

The [Recovery and Resilience Facility](#) is the central pillar of the recovery plan for Europe, Next Generation EU. It provides financial support to EU countries to mitigate the social and economic impact of the COVID-19 crisis

up to 2026. Member States had to send their final plans by 30 April to be officially assessed by the European Commission. So far 24 plans have been submitted.

As a follow-up to [Water Europe's position on COVID-19 released last year](#), Water Europe carried out a mapping exercise to identify water-related investments in each of these plans. More precisely, WE evaluated these plans on 4 criteria:

The support for the digitalisation of water management (Digital Water).

The contribution in terms of circularity and the exploitation of the value in water¹,

The consideration of the value of water for the society, the economy and the environment,

The availability of investments for Hybrid Grey and Green Infrastructure² solutions in the management of water quantity and quality,

Given the advanced state of the process, the objective of this analysis is to identify areas of progress in the implementation of the plans, to identify shortcomings that can be addressed through coordination with other funds and to promote the exchange of best practices among Member States.

The preliminary results have raised concerns about some of the national recovery and resilience plans in terms of resilience and maximization of the synergies with several European strategies (eg. Zero Pollution Action Plan, EU Adaptation Strategy, Biodiversity Strategy for 2030 ...). Overall, Water Europe has identified 4 areas where more efforts are needed to achieve a Water-Smart Society for a strong post-COVID-19 Europe:

1

REINFORCE TARGETED INVESTMENTS TO ACHIEVE A WATER-SMART SOCIETY

National recovery and resilience plans should contain water-related reforms and investments to reboot and build a resilient Europe. However, Water Europe is concerned about the low level of funding for these reforms and investments in some of the plans. Indeed, low funding rates in the water sector will not allow the transformational investments needed.

1. Indicates the economic and societal value that can be accomplished by extracting and valorising substances such as nutrients, minerals, chemicals and metals, as well as energy, embedded in used water streams.
2. A combination of grey engineered infrastructure, green engineered infrastructure and natural systems, part of the water system that will be used for water extraction, treatment, distribution, reuse and resilience.

On average, this rate represents between 6 and 7% of the total funding available for each country. Similarly, according to the OECD Green Recovery Database³, water only accounts for around 8% of measures in both funding and measures. It should be noted, however, that water-related measures may be hidden in other broader components. In addition, the national plans demonstrate some shortcomings in addressing all aspects of a Water-Smart-Society:

- ✓ **All countries should consider the value of water in their plans.** Indeed, as the European Environment Agency⁴ points out, water scarcity is not only limited to southern Europe, but extends to western, eastern, and northern areas. More specifically, Water Europe welcomes the holistic approach taken in several of the plans presented (e.g., within the Belgium, Cypriot, Italian, or Slovenian NRPP etc.) and recommends that all plans consider the value of water across various sectors, including the industrial one.
- ✓ **The NRRPs are an opportunity to support water smart management in the circular economy.** Indeed, there is a huge potential in water reuse and value in water that could be beneficial for a sustainable Water-Smart Society. While this opportunity is present in several of the plans (e.g., Belgium, Cyprus, Italy, Portugal, Slovenia, Spain etc.) it would be benefit from further development or consideration in others.
- ✓ **Investing in Digital Water is a key step in supporting recovery.** Indeed, a truly interoperable, intelligent, and data-centric digital ecosystem will provide the framework for a water-driven sustainable growth. While all plans address the issue of digital, not all mention the opportunities that digital could bring to water management.
- ✓ **Water Europe has concerns about investments related to the preservation of ecosystems and water quality in some of the plans.** The NRRPs should maximize synergies with the Biodiversity 2030 strategy and the Zero Pollution Action Plan. In this regard, investing in Hybrid Grey and Green Infrastructure would allow member states to reduce the impact of our societies on freshwater resources and create a resilient society for the future. In addition, some countries have made a rather light assessment of the 'do no significant harm principle'. For example, 'investments in flood risk reduction infrastructure, including renovation of polder pumping stations, restoration of protective dams, restoration of regulated sections of rivers' in the Latvia's national recovery and resilience plan, have raised concerns among many environmental non-governmental organisations, as it can negatively impact wetlands and biodiversity⁵.

2 INVESTMENT IN RURAL AREAS SHOULD BE FULLY CONSIDERED

The pandemic has exacerbated many of the already existing problems in rural areas and has once more highlighted the vulnerability of these regions. **Rural areas should thus be fully considered and streamlined in water-related investments of national recovery and resilience plans.** Indeed, thanks to its interactions with all other sectors, smart water management can help as reboot and accelerate the recovery of our society by making them key stakeholders in a European Water-Smart Society.

However, Water Europe has some concerns that rural areas may benefit less from the European Union's plans to help a post-COVID-19 Europe that is greener, more digital, and more resilient, concerns also expressed by the European Committee of the Regions (CoR)⁶. Rural areas may indeed be allocated less funding due to the structural framework of national recovery and resilience plans and their priorities for action and implementation methods. Many funds will be allocated through a call for proposal, which could undermine the capacity of rural areas to access them as they have traditionally weaker capacity building and technical support in programming and spending EU funds. Furthermore, according to the CoR the current delineation of rural areas probably underestimates the true extent of rural areas in Europe, as the intermediate grey areas most likely face the same challenges as rural areas.

3. https://www.oecd.org/coronavirus/policy-responses/the-oecd-green-recovery-database-47ae0f0d/?utm_source=Adestra&utm_medium=email&utm_content=Read%20the%20policy%20response%20-%20OECD%20Green%20Recovery%20Database&utm_campaign=22%20April%20-%20OSG%20lecture%2C%20climate%20data%2C%20Green%20recovery%20%28database%2C%20brief%2C%20blog%29%2C%20EAG%2C%20IAC%2C%20NBS%20report%2C%20%29&utm_term=env

4. <https://www.eea.europa.eu/data-and-maps/indicators/use-of-freshwater-resources-3/assessment-4>

5. https://bankwatch.org/wp-content/uploads/2021/05/2021-05-19_Building_Back_Biodiversity_final.pdf

6. https://cor.europa.eu/en/news/Pages/Rural-areas-recovery-plans.aspx?newsletter_id=747&utm_source=cor_newsletter&utm_medium=email&utm_campaign=CoR%20&utm_content=Rural%20areas%20should%20not%20be%20left%20behind%20in%20the%20recovery%20plans&utm_term=News&lang=fr

Therefore, the European Commission should ensure that rural areas are not left behind. Member States and managing authorities should facilitate and simplify their access to EU funds and funds must be distributed fairly between regions.

3

ENHANCE SYNERGIES BETWEEN WATER-RELATED INVESTMENTS

In order to ensure maximum return on investment, it is necessary to coordinate spending and strengthen synergies in certain priority areas. For example, with regard to water quality, and as highlighted in the Zero Pollution Action Plan⁷, pollution does not stop at borders. Thus, **strengthening the European dimension by promoting synergies between plans and by implementing cross-border projects could be beneficial.**

Overall, cross-border actions appear scarce in the plans submitted. An example of good practice is present between Spain and Portugal which have created a working group responsible for articulating in the respective recovery plans mechanisms to promote collaboration and deploy joint projects, including in the field of water and biodiversity. But details are lacking.

Moreover, intraregional synergies are also important. For example, the distribution of funds between entities for the Belgian plan leads to a strong spatial concentration of certain measures.

4

GET THE IMPLEMENTATION RIGHT

The submission of the national recovery and resilience plans is only the first step. The implementation of these plans should be carried out in an effective manner to ensure a long-lasting impact.

First, as a European Central Bank study points out⁸, in order to allow for a timely and efficient absorption of recovery funds, **special attention should be paid to bolstering administrative capacity and reducing implementation bottlenecks.**

Adequate national control and audit systems could also play a crucial role. Maximum effort will be needed in the intermediate and ex post assessments of measures, including with respect to milestones and targets. These will allow governments to monitor the progress and assess the achievements.

Finally, the process should be transparent. Unfortunately, the process so far has been mostly conducted behind closed doors⁹. Already on the 22nd of January 2021 the Committee of the Regions and the Council of European Municipalities pointed out after a consultation of associations of local and regional authorities that only a few countries took on local-regional authorities' input¹⁰. Similarly, in a resolution of the 25th of February¹¹ the European Economic and Social Committee highlighted that most of social partners and COSs consulted considered that the level of actual participation is largely insufficient and that the processes do not allow CSO opinions to have enough of an impact. In addition, late engagement of stakeholders has made difficult to effectively influence already drafted plans.

Thus, transparency should be improved for the implementation phase. National governments should clearly communicate the approaching targets and the fulfilment of objectives. The active involvement of stakeholders will also be vital at all stages of the implementation process. In particular citizens as well as local and regional authorities should be adequately involved in the implementation, monitoring and adjustment of the NRRPs and are an essential tool in the fight against corruption and inefficiency.

7. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Pathway to a Healthy Planet for All, EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil', 12.05.2021, https://ec.europa.eu/environment/pdf/zero-pollution-action-plan/communication_en.pdf

8. https://www.ecb.europa.eu/pub/economic-bulletin/focus/2021/html/ecb.ebbox202102_07~7050ed41dd.en.html

9. Eg the reaction of the Croatian President Zoran Milanović on the 24th of April - https://www.euractiv.com/section/politics/short_news/milanovic-deems-national-recovery-plan-insufficiently-transparent/ or the criticisms of the regional finance ministers in Spain - <https://www.elmundo.es/economia/macroeconomia/2021/04/19/607d9d83fc6c8340158b45df.html>

10. Please find the full study here: <https://cor.europa.eu/en/news/Pages/post-COVID-recovery-plans-.aspx>

11. <https://www.eesc.europa.eu/en/documents/resolution/involvement-organised-civil-society-national-recovery-and-resilience-plans-what-works-and-what-does-not>

ANNEX

OVERVIEW OF THE NATIONAL RECOVERY AND RESILIENCE PLANS

Belgium



Water-related Investment¹²:

Around 6-7% for water-related components.

Situation:

Consideration of water quality and quantity, circularity and ecoconception. The Blue Deal (VLA) also focuses on NBS, Digital Water and sustainable water use in various sectors.

It could have been beneficial to strengthen intraregional synergies.

Croatia



Water-related Investment¹²:

Water components account for around 11% of funding. In addition, there are several funding available in other components having positive effects on water (eg. building renovation, medical waste management, tourism, soils preservation and investments for the green transition of companies).

Situation:

The positive points are the focus on water management, access to water and sanitation in rural and vulnerable areas, Digital Water, water quality and green infrastructure. **Possibilities for improvement: more emphasis on the exploitation of the value in water.**

Cyprus



Water-related Investment¹²:

“Smart and sustainable water management” component represents around 7,1% of the funding. Besides, there are several funding available in other components having positive effects on water.

Situation:

Consideration of the value of water (inc. R&I funding), water-energy nexus, water quality, green infrastructure and NBS, Digital Water, and circularity. The plan also contains measures to support local authorities.

The urban-rural interface needs to be considered in the implementation phase.

Czechia



Water-related Investment¹²:

Around 10% for water-related components.

Situation:

Consideration of water quality and quantity, adaptation to climate change and green infrastructure, Digital Water and reuse in industries.

More emphasis on marginalized groups and areas and increased opportunities for cross-border projects would be beneficial.

Finland



Water-related Investment¹²:

Around 4% for water-related components. Please note that some investments related to high technology can also be used in the water sector.

Situation:

Consideration of the quality of water and nature-based solutions, exploitation of the value in water. Establishment of a water competence growth and export program (contribute to the achievement of the SDG6).

A higher funding rate would also have led to more transformational changes. The urban-rural interface needs to be taken into account in the implementation phase.

Italy



Water-related Investment¹²:

Around 4,5% for water components. Overall up to 7-8% of the funding can have a positive impact on water (circular economy and innovation in agriculture).

Situation:

Consideration of the value of water in various sectors, quantity and quality of water, adaptation to climate change, circularity and the exploitation of the value in water, green infrastructure and digitalization.

Possibilities for improvements: more emphasis and funding on the protection of ecosystems and NBS.

12. As stressed by the OECD, data remains approximative due to the difficulties to identify the whole water-related investment in the national recovery plans.

Portugal



Water-related Investment¹²:

2,3% for the water management component. Around 5-6% taking into account green innovation and bioeconomy.

Situation:

Consideration of water management and efficiency in various sectors to reduce water scarcity. In particular, wastewater reuse and the water-energy nexus are emphasized. The possibility of joint projects with Spain is also highlighted. **Possible improvements: strengthening intraregional synergies, Digital Water, water quality and Hybrid Grey and Green Infrastructure.**

Spain



Water-related Investment¹²:

Water-related components account for around 7% of the funding. To this can be added a part of the funding dedicated to research projects and Spain Industrial Policy 2030.

Situation:

Positive points are the emphasis on ecosystem conservation/restoration, joint projects with Portugal, water management (incl. in industry), research projects on the impact of climate change, water reuse, NBS and Digital Water. **The emphasis on the value in water as well as on rural areas could be accentuated.**

Estonia



Water-related Investment¹²:

Around 3% of funding related to green technologies and valorisation of biological resources.

Situation:

No direct water component. Several measures are planned to have a positive effect on water management and quality (greening of businesses and bioeconomy, green technologies and NBS, valorisation of biological resources).

Improvements needed in terms of investments related to water management and circularity.

Greece



Water-related Investment¹²:

3,3% of funding for direct water components. Some funding may also be available under research and innovation programs in particular.

Situation:

Consideration of supply and quality of water, modernisation of WWTPs and reuse of treated water, Digital Water.

Improvements needed: consideration of the value of water in the industrial sector. More emphasis on Hybrid Grey and Green Infrastructure would be beneficial.

Romania



Water-related Investment¹²:

6,4% for water management component. Around 7-9% taking into account other water-related measures.

Situation:

The positive points are the consideration of access to water and sanitation for the most marginalized groups and schools in rural areas, water quality and adaptation to climate change (including NBS and green infrastructure), research and innovation, Digital Water.

Possible improvements: value of water and reuse in industrial sector.

Denmark



Water-related Investment¹²:

No direct water component. At least 12% of funding with positive impacts on water.

Situation:

Consideration of water quality and R&D especially in agriculture.

Improvements needed in terms of HGGI, water management and circularity. Digital opportunities for the water sector could also be highlighted in the implementation of the plan.

France



Water-related Investment¹²:

1,6% for components directly related to water. Up to 4% considering measures having a positive impact on water.

Situation:

Consideration of access to water, water management, water quality, innovation funding and circularity.

A greater emphasis on Digital Water, Hybrid Grey and Grey Infrastructure, circularity especially in industry, as well as less developed regions would be beneficial. A higher funding rate would also have led to more transformational changes.

Ireland



Water-related Investment¹²:

Around 2% of funding to upgrade WWTPs - up to 13% with the component on the rehabilitation of peatlands. Some funding may also be available through the national grand challenge programme.

Situation:

Consideration of water quality (upgrade of waste water treatment plants, rehabilitation of peatlands).

Improvements needed in terms of water-smart management and circularity.

12. As stressed by the OECD, data remains approximative due to the difficulties to identify the whole water-related investment in the national recovery plans.

Lithuania



Water-related Investment¹²:

Around 1% linked to water quality and peatlands. Also funding are available under the renovation of building, smart specialization and circular economy.

Situation:

Consideration of water quality, water use in the renovation of buildings, promotion of Horizon Europe and green innovation & jobs. **Improvements needed: water management and efficiency, circularity in water and Digital Water more directly mentioned.**

Poland



Water-related Investment¹²:

Up to 12% of water-related investments or investments having positive effects on water.

Situation:

Consideration of sustainable water management in agriculture and access to water and sanitation in rural areas, Digital Water, NBS, investments in research.

Possible improvements: preservation of ecosystems and better evaluation of the 'do no harm principle', water management in the industrial sector and circularity.

Slovenia



Water-related Investment¹²:

Around 18% dedicated to flood risk reduction, municipal wastewater treatment and drinking water supply projects.

Situation:

Consideration of water quality and quantity, access to water, energy efficiency in UWWTD, circularity and Digital Water.

Possibilities for improvement: more emphasis on Hybrid Grey and Green Infrastructure, preservation of ecosystems.

Germany



Water-related Investment¹²:

Digital Water (data policy, microelectronics): 7-8%. Part of the funding for the climate-friendly building and renovation component will also be used for NBS.

Situation:

The positive points are the presence of green infrastructure and NBS in climate-friendly building renovation, indirect impact on water resources through decarbonization support program in industry and Digital Water.

Improvements needed: water management, water quality/protection of ecosystems, circularity.

Luxembourg



Water-related Investment¹²:

6,4% of funding for the Naturpakt. Water sector will also benefit from funding under the deployment of research on quantum technology (10 million) and the Neischmelz project (positive effects on polluted soils - 24 million).

Situation:

Consideration of water quality and Digital water..

Possibilities for improvements: water management (eg in agricultural and industrial sectors), circularity.

Slovakia



Water-related Investment¹²:

Protection of nature and biodiversity accounts for around 2,4%. In addition, there are several funding available in other components having positive effects on water (eg. renovation of building).

Situation:

Consideration of water resources protection, adaptation to climate change and green infrastructure, consideration of water in renovation of buildings. **Improvements needed: more emphasis on water-smart management. In addition, more water-related funding would have led to more transformational changes.**

Austria



Water-related Investment¹²:

Around 2,5% for water-related components. By adding measures that can have a beneficial effect on water we can estimate an amount of about 5%.

Situation:

Consideration of ecosystems and NBS, citizen sciences included in the biodiversity funds and transformation of industry towards climate change neutrality can lead to a reduction in water consumption. **Improvements needed in terms of water-smart management and circularity. In addition, more water-related funding would have led to more transformational changes.**

Hungary



Water-related Investment¹²:

Water management component: around 2%. Other measures can have positive impact on water resources (transition towards circular economy and innovation).

Situation:

Consideration of water quality and quantity (incl. uneven distribution of water resources) and Digital Water. **More emphasis on the circularity of water esp. in industry would be beneficial. In addition, despite the presence of water-related measures the level of funding is too low to deliver any substantial improvements. The transparency of the process was also criticized.**

12. As stressed by the OECD, data remains approximative due to the difficulties to identify the whole water-related investment in the national recovery plans.

Latvia



Water-related Investment¹²:

Around 6% of funding for measures related to flood risk reduction and measures having a positive impact on soil.

Situation:

Consideration of adaptation to climate change, AI in agriculture. Some measures may also have a positive indirect impact on water quality and quantity.

A better consideration of the quantity and quality of water and Digital Water would be beneficial, as well as a better evaluation of the ‘Do no significant harm principle’.

Sweden



Water-related Investment¹²:

No direct water component. Possible investments in biogas, water-energy efficiency in building restoration and research. Note, however, that investments in drinking water are planned in the state budget 2021-2025.

Situation:

No direct water component. Consideration of energy, water efficiency in buildings & biogas investments. The protection of natural areas and research in digitalisation can also have a positive effect. **Possible improvements: investments on water quality and quantity, HGGI and circularity.**



12. As stressed by the OECD, data remains approximative due to the difficulties to identify the whole water-related investment in the national recovery plans.



Technology & Innovation